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CHILTON'S

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AUTOMOTIVE INDUSTRIES

SINCE 1895



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CHILTON'S AUTOMOTIVE INDUSTRIES

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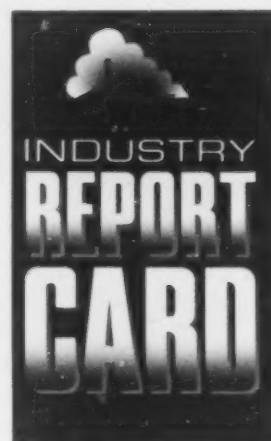
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CHILTON COMPANY, PART OF CAPITAL CITIES/ABC, INC.

1987 INDUSTRY REPORT CARD

What all the big numbers really mean.

by John McElroy

When future automotive historians look back at 1987, they're likely to note that the year contained a couple of interesting surprises.

First of all, despite two major setbacks, the market showed remarkable resilience. Sales slumped in the first quarter due to the new US tax law that eliminated personal deductions for the sales tax on automobiles. Then, in the fourth quarter, consumer confidence was shaken by the 500-point crash of the New York Stock Exchange on October 18th.

As a result of these setbacks, sales of cars and trucks fell by more than a million units. Nonetheless, at 15.2 million units, it was still the fourth best sales year in history.

One of the other surprises of the year was that imported car sales fell more than domestic car sales, both in total numbers and on a percentage basis.

Whereas domestic car sales were down by 532,000 units, imported cars dropped by nearly 650,000 units. And the comparison in the truck market was even more

dramatic. Domestic truck sales rose 4.6%, while imported trucks fell 3.5%.

Yet that doesn't mean that all the domestic automakers were successful. To get a true picture, each one must be analyzed on an individual basis. So to put the performance of the Big Three into perspective, *AI* presents the 1987 Industry Report Card.

Under our system, each company is graded according to how it performed in six different categories. Each grade is given based on trendlines that indicate whether or not the company is improving in those categories. We don't compare one company to another. We compare each company against its past efforts, and then we sum it up in an overall grade.





FORD



CATEGORY	1973	1978	1985	1986	1987	GRADE
Quality	--	--	95.3	104.5	101.6	C-
Profit/Unit	\$260	\$360	\$484	\$677	\$1014	A+
US Market Share	29.8%	26.5%	20.3%	21.2%	23.1%	A
Return On Sales	3.9%	3.7%	4.7%	5.3%	6.4%	A
Productivity	13.7	13.8	16.4	16.8	18.7	A+
Inventory Turns	5.3	6.5	14.1	13.8	15.6	B

OVERALL GRADE: A



Ford: Best in Class



For the first time since we started the Industry Report

Card four years ago, an automaker has earned an overall "A". 1987 will probably be remembered as the Golden Year for the Ford Motor Company. By outearning giant General Motors for the second year in a row, Ford has established itself as the most profitable car company in the world. And it did so with conviction: The company earned a pre-tax profit of nearly \$7.4 billion and finished the year with \$10 billion in cash and securities on hand.

Perhaps even more remarkable is that Ford's worldwide sales jumped by \$9 billion to a total of \$71 billion. That means Ford is now $\frac{1}{4}$ the size of GM. If Ford maintains this rate of increase, it could conceivably surpass GM and become the world's largest automaker, sometime in the early 1990s.

Despite this spectacular financial performance, the company suffered a significant drop in its quality rating, which is based on the J.D. Power Customer Satisfaction Index. The latest CSI is based on data from 1986, which was the first year for the

Taurus/Sable, cars which had their share of teething problems.

The people at J.D. Power say the data they're getting now shows that Ford has solved these problems. Still, we graded rather harshly and gave Ford a "C-" in quality performance.

In the profit-per-unit category, which is derived from operating income, Ford's performance was simply spectacular. It earned more than \$1000 for every vehicle it sold worldwide, which shows that Ford's efficiency stretches around the globe.

What makes this figure even more impressive is that competition in North America forced Ford (and everyone else) to cut prices through rebates and other sales incentives. But even with these price cuts, Ford still made more money than it did last year.

Out in the marketplace, Ford also ran against the trend. Even though the whole American market fell 7.2%, Ford managed to increase total sales by 4.4% and market share by 1.9 percentage points. The fact that an established company the size of Ford could increase share in these conditions earned it a solid "A".

Return On Sales provides a measure of how much money a company is able

Another Ford all-star: New Continental is sold-out through June.

to keep, compared to the total amount of money it took in. And as the trendlines in the Report Card show, Ford is able to keep more money every year. Why? Because Ford's policy of continuous cost cutting means that it has fewer bills to pay.

The company's Productivity figures show that every year it needs fewer people to build more vehicles. In fact, the latest figures show that Ford's worldwide productivity increased 11.3% last year. And Ford's US hourly employees were able to share in this improvement by earning an average of \$3700 in profit sharing.

Ford was also able to increase its Inventory Turns, which shows that the company was running its plants with lower amounts of inventory and more just-in-time production. All this confirms that Ford's manufacturing operations continue to improve every year.

Ford's overall year-to-year improvements are not spectacular. But rather than try to smash a home run every time it gets up to bat, Ford seems content to consistently hit singles. That's continuous improvement.

★ CATEGORY	CHRYSLER					★
	1973	1978	1985	1986	1987	GRADE
Quality	--	--	77.3	89.6	102.3	A +
Profit/Unit	\$127	(\$129)	\$1073	\$867	\$807	D +
US Market Share	15.6%	11.2%	11.8%	11.7%	12.3%	B -
Return On Sales	2.1%	(1.5%)	12.1%	7.7%	6.2%	D
Productivity	13.0	13.1	19.6	19.6	16.2	D
Inventory Turns	5.6	6.3	18.8	22.1	16.8	F
OVERALL GRADE: C -						



AMC/Jeep buy hurt Chrysler's 1987, will help its future.

Chrysler: AMC Was A Mouthful

★ For the last two years Chrysler had turned in the best Report Card performance. But the latest results seem to show that swallowing and digesting AMC is turning out to be a longer process than even Chrysler's management thought it would be. Perhaps next year will yield results that are more positive, but for the time being, Chrysler has got its hands full trying to re-streamline its operations.

Yet, Chrysler deserves to be proud of its Quality rating. The results show that the company continues to get better—and amazingly, Cadillac, Mercury and Lincoln were the only domestic nameplates to finish ahead of Plymouth in the latest Power CSI.

Part of Chrysler's Quality success, of course, relates to the fact that it has been using the same basic platform, engine and underpinnings for eight

years. At this point their workers could probably build these cars in their sleep. Chrysler may well find it harder to maintain these quality improvements when it starts to introduce new designs. But that's not to take away anything from its solid "A+" 1987 achievement.

In the Profit-Per-Unit department, Chrysler's trendline is in the wrong direction. That's why we rated it a "D", even though it made more money per vehicle than GM. But Ford easily outearned them both, showing that it is now the low-cost producer in the United States—a distinction it wrestled away from Chrysler. Considering Ford's higher level of in-house component production compared to Chrysler's (50% vs. less than 30%), this also suggests that outsourcing is *not* the key to low-cost production.

Part of the decline can be explained by Chrysler's purchase of AMC, which certainly had the effect of raising

costs. But it seems to have been mainly due to the extensive sales incentive and rebate programs Chrysler resorted to in 1987. And it's likely that things are going to get worse before they get better. Even though the minivan and Jeep lines are very profitable, Chrysler has recently been forced to offer \$2500 rebates on most of its products to cut its high inventory.

Chrysler's improvement in Market Share needs some special explanation. Though the company improved its share in a market that was shrinking, this was mostly due to its acquisition of AMC, not because it sold more vehicles on its own. And though these vehicles were only counted as "Chryslers" after June, this is where the company's increase in market share came from. But an improvement is an improvement—and Chrysler gets a "B".

Chrysler's Return On Sales performance is a reflection of how the company's breakeven point has been on the rise. In other words, Chrysler's costs have been going up faster than it has been able to increase efficiencies.

In 1987, for example, total sales increased by nearly \$3.7 billion, yet profits declined by \$100 million. That's why we gave Chrysler a "D" in this category, even though it looks very good compared to Ford and GM.

After achieving spectacular improvements in Productivity and Inventory Turns during the early 1980s, the slip Chrysler took in these categories doesn't bode well. But as we have already pointed out, much of Chrysler's 1987 performance was affected by the purchase of AMC. And though this is causing short-term problems, we still see it as a brilliant acquisition that will serve the company well in the long run. Once Chrysler fully digests AMC, we expect to see it do better again.



GENERAL MOTORS



CATEGORY	1973	1978	1985	1986	1987	GRADE
Quality	—	—	92.6	92.4	100	B
Profit/Unit	\$490	\$684	\$496	\$166	\$330	C +
US Market Share	51.5%	47.3%	40.3%	38.4%	34.7%	F
Return On Sales	6.7%	5.5%	4.1%	2.9%	3.5%	C
Productivity	11.4	12.1	12.0	11.7	11.3	D
Inventory Turns	5.4	6.7	11.9	17.4	18.0	A

OVERALL GRADE: C

GM: Turnaround in Sight?

GM Even though GM didn't turn in a spectacular performance for the 1987 Industry Report Card, it certainly did a whole lot better than in 1986. Perhaps it's overstating the case to say that "the vision is paying off." But the company now has a number of world-class products, including the GM10 cars, the Quad 4 engine and the GMT400 pickup trucks that are catching on in the marketplace. As such, we'll go out on a limb and predict that 1988 will be the General's turnaround year.

Perhaps the best indication of a possible GM turnaround is the improvement it achieved in Quality. For the first time since J.D. Power started its Customer Satisfaction Index, one of GM's divisions—Cadillac—finished in the top 10. And Cadillac came out ahead of all other domestic nameplates, including Lincoln. As a result of this improvement, we awarded GM a "B" for its effort.

We were impressed to see that GM's Profit Per Unit performance was twice what it was last year. But GM still fell short of what it achieved in 1985, and we're grading each company against its own previous efforts. That's why GM only rated a "C+" here.

It's when we turn to US Market Share that GM's biggest problem is evident for all to see. For the last 15 years, GM has been steadily losing share. If the present trendline continues, GM could shrink to Ford's size sometime in the mid-1990s.

The company's market share drop in 1987 of 3.7 percentage points is dangerous. In fact, GM's passenger car sales fell by 1 million units—which is the equivalent of losing Chrysler's entire passenger car operations in the



World-class GM10 cars should fuel the General's resurgence.

US! As we indicated earlier, we believe GM now has the products coming to turn this situation around. But we feel compelled to give GM an "F" for its effort in 1987.

GM's Return On Sales improved last year, but we have to question where that improvement came from. For example, GM didn't pay any US income tax in 1987, compared to the \$2.7 billion Ford paid in taxes. Then too, the company was able to improve the bottom line by \$800 million simply through accounting procedures. Half of GM's profits came from its non-automotive operations even though these only accounted for 22% of total sales.

Indeed, when these accounting procedures and the profits of GMAC, Hughes and EDS are subtracted from the profits GM earned in North America, it turns out the company actually lost \$913 million on its automotive operations in the US and Canada. This explains why GM's hourly workforce

wasn't given any profit-sharing checks, even though the company reported a total net profit of \$3.6 billion.

At first glance, GM's Productivity rating seems hard to explain. After all, the company pared 61,000 autoworkers from its worldwide payrolls in 1987. That alone should have boosted its productivity figures. The problem is that GM's sales have been sliding faster than its headcount, so it hasn't realized an improvement in productivity yet. But this also raises an important point: With the drop in sales, mustn't GM reduce its headcount well beyond what it has announced in order to reach the efficiencies it set out to achieve?

If there is one truly bright spot in GM's 1987 Report Card, it comes in its Inventory Turns. Not only does this indicate that GM is running its plants with lower amounts of inventory, a quick comparison shows that it has achieved a best-in-class rating here. **[A]**

CHILTON'S TRUCK & OFF-HIGHWAY INDUSTRIES

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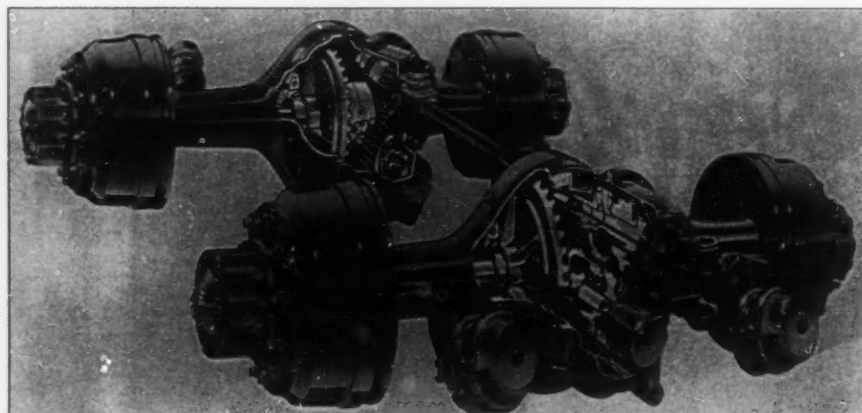
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Unscathed by the Crash

by John Stark

The crash of the US stock market might have cleaned the clocks of financial speculators but truck, farm and construction machinery makers are yet to be taken to the cleaners.

When the US stock market fell apart last October 19, apprehension swirled around the truck and off-highway industries about the impending fate of business.

Would unsettled financial markets further weaken consumer confidence and cause panic in the US economy, executives asked?

Would a rise in interest rates dry up US housing starts and send light construction machinery into a tailspin?

Would farmers cash in their 1988 payment-in-kind (PIK) federal subsidy certificates early and use the capital to retire debt, rather than invest in new farm equipment?

Would trucking fleets turn to the used truck market at the expense of new truck retail sales?

Economic questions were many and the answers few. Months later, the dust has settled. Truck, farm and construction machinery producers, suppliers and financiers apparently have little reason to be concerned. Business continues abated.

Farm machinery has entered early ascent to cyclical recovery. Trucks and



John Stark is editor and publisher of Stark's Off-Highway Ledger.

construction machinery demand remain at the top end of the current industry cycle.

"The more I look at that crash, the more I'm wondering if it wasn't a very healthy cleanout of an overheated situation," reasons Freightliner chairman Peter E. Rupp. "All in all, it looks like an economy that's living on a good Keynesian recovery trail."

Heavy truck industry statistics appear to bear Rupp out. Backlogs of unfilled orders for new trucks are still rebounding, following a December re-

prieve. Retail sales declined in January, but are seen as non-consequential due to a rising level of gross order intake, as well as reduced cancellation rates. Hence, vehicle production continues to climb.

In fact, truckmakers are still adding units to their daily assembly schedules. If a slowdown materializes, says Mack chairman John B. Curcio, it might not occur until the fourth quarter of 1988.

The construction machinery business also is enjoying the windfall of peak demand—despite slowdown in US housing starts. Sales have been steadily increasing since December.

Yet, the mix of demand has shifted toward medium and heavy machinery, as export markets benefit from a sharp slide in the value of the US dollar. Light-duty vehicles are falling as US housing starts contract.

Farm machinery business is on the mend too, ending eight straight years of recession. Continuing recovery and a shortage of good used vehicles are responsible for much of the turnaround.

Industry officials see farmers cashing in their PIK certificates in the 1988 first half to buy new tractors. Rising self-propelled combine sales this fall should enable the industry to register its first year-to-year gain in actual unit turnover since 1979.■

US TRUCK AND OFF-HIGHWAY BUSINESS AFTER THE CRASH

TRUCKS

	Oct. '87	% Change Year Ago	Nov. '87	% Change Year Ago	Dec. '87	% Change Year Ago	Jan '88	% Change Year Ago
Class 1-2	311,670	+11.3	304,999	+21.2	327,980	-00.9	288,989	+28.5
Class 3-7	14,032	+08.7	13,893	+34.4	15,972	+12.7	12,871	+11.3
Class 8	12,056	+12.0	10,074	+18.5	11,374	+03.7	9,414	+18.4
Total	337,757	+11.1	328,966	+21.7	355,326	-00.2	311,274	+27.3

CONSTRUCTION EQUIPMENT

	Oct. '87	Change Year Ago	Nov. '87	% Change Year Ago	Dec. '87	% Change Year Ago	Jan '88	% Change Year Ago
Crawlers	1,100	+18.3	1,110	+08.7	1,880	+11.9	1,150	+119.
Wheel Loaders	700	+23.9	805	-00.6	1,000	-04.8	700	+97.2
Ind Wheel Trctr	2,405	-08.0	2,460	-13.5	3,225	-05.1	1,350	+13.9
Skid Steer Ldrs	1,740	+23.4	1,650	+20.9	2,015	+04.7	1,265	+47.9
Log Skidders	240	+33.3	205	+32.2	290	+65.7	190	+02.7
Total	6,185	+08.5	6,230	+00.7	8,410	+02.2	4,655	+49.9

A Class 8 COE Resurgence

by Douglas Williams

For years, industry watchers have said that if the taxes and road rules for big trucks were more logical, sales of cabover-engine tractors would suffer dramatically. One recent piece of legislation, the Surface Transportation Act of 1983, removed most of the restrictions regarding overall length in tractor-trailer rigs, causing many to predict the demise of the COE.

It didn't quite work out that way. In fact, many in the industry are pleasantly surprised that COE sales have hung on and may even grow somewhat in coming years.

At Volvo GM Heavy Truck, product planning manager Brian Wheeler says his company is looking for sales of cabovers to reverse the trend of recent years.

Where COEs peaked at 42% of the market in 1982 and then fell steadily—to 40% in 1984, then to 25.5% in 1986, then to about 17% last year—Volvo GM today expects to see the cabover share rise initially, and then flatten out.

"We now expect this trend [to fall-ing market share by cabovers] to reverse, with sales reaching approximately 22% in 1992," Wheeler says.

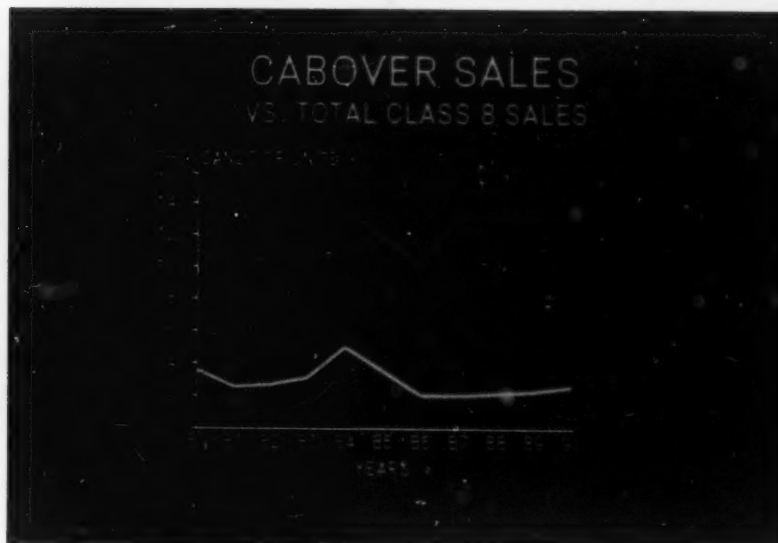
He cites two main reasons. First, the design changes going into cabovers—such as set-back front axles for better maneuverability, cab instep and improved aerodynamics.

Secondly, Wheeler notes the 53-ft long semi-trailer is gaining in popularity. Currently it accounts for less than 5% of van trailer sales, he says. But sales of that long trailer are going to increase, he argues.

"Currently, 31 states allow practical application of 53-ft semis on interstate roads either by regulation or permit," adds Wheeler.

Accommodating the 53-footer or pulling double-bottoms is boosting sales of Navistar's 9700 series COE, notes spokesman John McDonald, particularly models equipped with the set-back-front axle.

McDonald says the cabover is gain-



•Sales estimates, 1988-90

ing back some of its past appeal to truck operators. He explains that in order for shippers to gain a bigger cube, they need the longer trailer.

Just a few years ago, conventional wisdom held that if those overall limits on truck length didn't exist,

conventionals would overwhelm the industry. Now the inherent design advantages of those 'two-story trucks' are giving new enthusiasm to the Class 8 truckmakers. Indeed, the predicted demise of the big COE has been greatly exaggerated. ■

Manufacturer	1988	1989
Ford	503	456
Freightliner	7415	6200
GMC	447	810
Kenworth	1811	1643
Mack	1927	1432
Marmon	7	5
Navistar	10,145	10,153
Peterbilt	1825	1879
Scania	6	7
Volvo White	583	885
TOTAL	24,789	23,623

Source: MVMA Policy Analysis Dept. and truck manufacturers

Early Look: GMC's Next Medium

by Douglas Williams

General Motors' next major medium truck model change, coming with the 1990 conventional-cab medium series, will be carrying the softer, rounder lines of the current GMT400-series full-size pickups. This comes at a time when those same styling lines are being blamed in part for the GMT400s' relatively sluggish sales performance.

The second point of interest on the new mediums is that they'll be powered with Caterpillar's 3116 diesel engines, a fact much applauded at Cat headquarters in Peoria. A large product line offering like the GM mediums goes a long way toward getting the base volume needed to make a new engine an economic success.

The medium trucks, Chevrolet's Kodiak and GMC's Top Kick, are widely used for school bus, construction and delivery applications.

In addition to the new Cat diesel, GM will continue to offer the mediums with its Detroit Diesel 8.2-L diesel and three gasoline V8 engines, from 5.7-L to 7.0-L.

Plastic Body Panels?

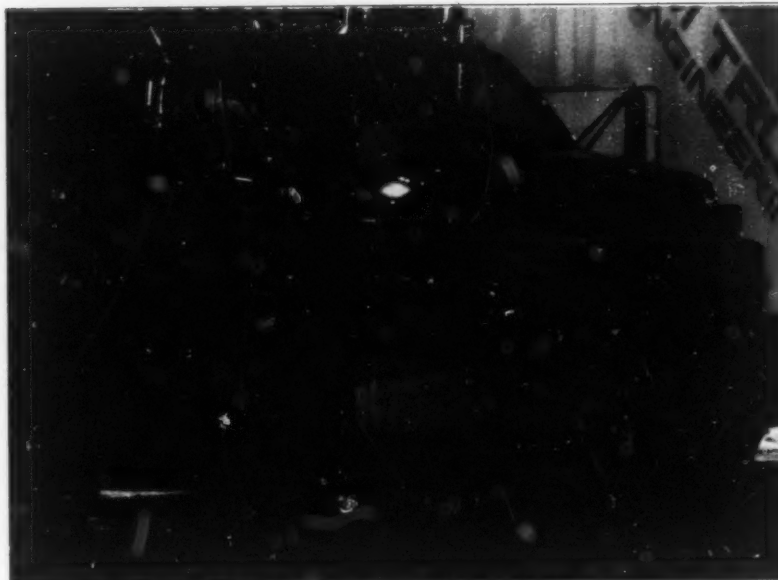
The Cat diesel is called the 3116 because it displaces 1.1-L per cylinder—or 6.6-L total displacement in the standard six-cylinder configuration. It's considered a state-of-the-art engine—certainly one of the reasons GM selected it for OE application.

Tom McDaniel, director of medium truck operations at GM Truck, said the new Cat engine will be rated from 165- to 250-hp in the new mediums.

Launched last year, the 3116 is now used in a Cat excavator and will appear in other Cat construction equipment this year. The engine is also part of what Caterpillar considers a major marketing thrust towards "the price competitive standby power market" for power generation that the company began last year.

Cat's engine people are touchy about public talk relating to the 3116 for an obvious reason: Such talk quickly involves the aging 3408 engine, whose future looks relatively incompatible with the 3116.

The accompanying spy photo shows



1989 GMC Top Kick. (Jim Dunne/Popular Mechanics)

the rounded edges on the new trucks' front ends. Doors wrap higher into the roofs, and the windshield has a more substantial slant than previous medium trucks.

There are reports, as yet unsubstantiated, that the new GM medium truck will incorporate major body panels made from plastic.

GM is trying to commonize as many parts, particularly cab parts, between the Top Kick/Kodiak and the GMT400 pickups as possible. Medium truck instrument panels have long been unique, for example; the cab and IP in the GMT400 pickup are fully adequate for medium truck uses.

GMC is currently testing the new truck against the F-700 Ford and Navistar 1600. Medium trucks, once the critical part of the truck business, have been eclipsed by Class 8s over the past two decades. The business is traditionally split by Ford, General Motors and Navistar where the three typically take over 90%.

For years they've split the business into nearly indistinguishable thirds, trading first place on a regular basis, with no one successful in establishing a dominant position.

Imports have yet to make major in-

MEDIUM TRUCK SALES Classes 4,5,6,7*

COMPANY	1986	1987
Navistar	44,700	43,800
Ford	45,300	42,700
GMC	34,500	31,200
Mercedes-Benz	4000	3800
Hino	1050	2000
Nissan Diesel	725	1700
Volvo	1450	1675
Iveco	—	780
Mitsubishi Fuso	—	750
Isuzu	6	550
Kenworth ¹	—	210
Peterbilt ¹	—	200
1987 TOTAL		150,465

*GVW 14,001-32,999 lb.

¹Built by VW do Brasil

roads into the medium market, despite serious efforts by Iveco, Mercedes, Nissan and others. Ironically, the off-shore successes in medium American trucks have been through the three domestics.

GM is selling some medium Isuzu trucks, and Navistar a variety of Nissans. Both truck lines wear the badges of the US companies. Ford is banking on its Cargo-series trucks, made in Brazil but with US-made major components. ■